

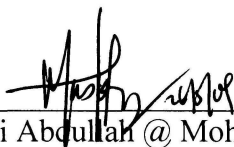
**EFFECTS OF INFUSION AND STEEPING CONDITIONS ON
THE TOTAL PHENOLIC CONTENT OF *Centella asiatica*
USING FOLIN-CIOCALTEAU METHOD**

SITI NADIRAH BINTI ABDULLAH

**Final Year Project Report Submitted in
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Faculty of Applied Sciences
Universiti Teknologi MARA**

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This Final Year Project Report entitled “**Effects of infusion and steeping conditions on the Total Phenolic Content of *Centella asiatica* using Folin-Ciocalteu method**” was submitted by Siti Nadirah bt Abdullah, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by



Pn Mashita Binti Abdullah @ Mohd Noor

Supervisor

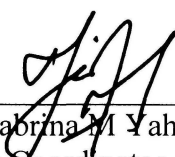
B.Sc (Hons.) Applied Chemistry

Faculty of Applied Sciences

Universiti Teknologi MARA

40450 Shah Alam

Selangor



Miss Sabrina M Yahaya

Project Coordinator

B.Sc (Hons.) Applied Chemistry

Faculty of Applied Sciences

Universiti Teknologi MARA

40450 Shah Alam

Selangor



Dr. Yusairie Mohd

Head of Programme

B.Sc (Hons.) Applied Chemistry

Faculty of Applied Sciences

Universiti Teknologi MARA

40450 Shah Alam

Selangor

Date: 26 MAY 2009

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Thank you,
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ABSTRACT

EFFECTS OF INFUSION AND STEEPING CONDITIONS ON THE TOTAL PHENOLIC CONTENT OF *Centella asiatica* USING FOLIN-CIOCALTEAU METHOD

This study was carried out to determine the effects of infusion and steeping conditions on the total phenolic content of *Centella asiatica* (pegaga) using Folin-Ciocalteu method. The total phenolic content of *Centella asiatica* tea extract were investigated using two infusion techniques, by hot boiling water and hot water dispenser. Then each of infusion techniques was steeped in two different steeping time, five minutes and 15 minutes. The percent extraction yield of aqueous extract of *Centella asiatica* of the samples varied from 11.73 to 5.93. The highest percent extraction yield obtained in infusion of hot boiling water for 15 minutes (11.73) and the lowest percent extraction yield obtained in infusion of hot water dispenser for five minutes (5.93). The total phenolic content of the samples varied from 85.20 mg (GAE)/g. to 27.89 mg (GAE)/g, expressed in gallic acid equivalents (GAE). The aqueous extract of *Centella asiatica* using infusion in hot boiling water for 15 minutes exhibited the highest total phenolic content 85.20 mg (GAE)/g while the aqueous extract of *Centella asiatica* using infusion in hot water dispenser for five minutes exhibited the lowest total phenolic, 27.89 mg (GAE)/g. Hence, it can be concluded that the total phenolic content increased with higher temperatures and longer steeping times. This suggested that the customers can choose to prepare *Centella asiatica* tea using hot boiling water with 15 minutes because it can preserve higher amount antioxidant compound.